What is claimed is:

A compound of formula I as indicated below:

## 5 wherein

10

15

20

25

n is 0 or 1;

When X is nitrogen or oxygen, Y is nothing;

When Y is nitrogen or oxygen, X is nothing;

T is a sulfonyl group (SO2) or canbonyl group (CO);

When T=CO, X is oxygen or nitrogen;

Z is selected from the group consisting of halo, CF3COO, mesylate, tosylate, or any other pharmaceutically acceptable counter ion;

R1 is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, C<sub>3</sub>-C<sub>8</sub> alkenyl, unsubstituted or substituted phenyl, or unsubstituted or substituted phenyl C1-C3 lower alkyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, phenyl and phenyl C1-C3 lower alkyl.

R2 is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, unsubstituted or substituted phenyl, or unsubstituted or substituted phenyl C1-C3 lower alkyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl and C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl and heterocycle rings;

R3 is selected from the group consisting of an unsubstituted or substituted following group: phenyl, phenyl C1-C6 lower alkyl, thiophenyl, thiophenyl C1-C6 lower alkyl, furanyl, furanyl C1-C6 lower alkyl, pyridinyl, pyridinyl C1-C6 lower alkyl, imidazolyl, imidazolyl C1-C6 lower alkyl, naphthyl, naphthyl C1-C6 lower alkyl, quinolinyl, quinolinyl C1-C6 lower alkyl, indolyl, 5 indolyl C1-C6 lower alkyl, benzothiophenyl, benzothiophenyl C1-C6 lower alkyl, benzofuranyl, benzofuranyl C1-C6 lower alkyl, benzoimidazolyl, benzoimidazolyl C1-C6 lower alkyl, C1-C8 branched or unbranched alkyl, C3-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl C<sub>1</sub>-C<sub>6</sub> lower alkyl, or C<sub>3</sub>-C<sub>8</sub> alkenyl; wherein, when substituted, a group is substituted by one or more radicals selected from 10 the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, phenoxy, phenyl C<sub>1</sub>-C<sub>3</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, methylenedioxy, ethylenedioxy, propylenedioxy, butylenedioxy, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, phenyl, phenyl C1-C3 lower alkyl, thiophenyl, thiophenyl C1-C3 lower alkyl, furanyl, furanyl C1-C3 lower alkyl, 15 pyridinyl, pyridinyl C1-C3 lower alkyl, naphthyl, naphthyl C1-C3 lower alkyl, quinolinyl, quinolinyl C1-C3 lower alkyl, indolyl, indolyl C1-C3 lower alkyl, benzothiophenyl, benzothiophenyl C1-C3 lower alkyl, benzofuranyl, benzofuranyl C1-C3 lower alkyl, COOH, COR6, COOR6, CONHR6, CON(R6)2, COG, NHR6, N(R6)2, G, OCOR6, OCONHR6, NHCOR6, N(R6)COR6, 20 NHCOOR6 and NHCONHR6;

R4 is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl.

25

30

 A. compound according to claim 1 selected from the group consisting of: n is 0 or 1;

When X is nitrogen or oxygen, Y is nothing;

When Y is nitrogen or oxygen, X is nothing;

T is a sulfonyl group (SO2) or canbonyl group (CO);

When T=CO, X is oxygen or nitrogen;

5

15

20

25

30

Z<sup>-</sup> is selected from the group consisting of halo, CF3COO<sup>-</sup>, mesylate, tosylate, or any other pharmaceutically acceptable counter ion;

R1 is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, C<sub>3</sub>-C<sub>8</sub> alkenyl, unsubstituted or substituted phenyl, or unsubstituted or substituted phenyl C1-C3 lower alkyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, phenyl and phenyl C1-C3 lower alkyl.

R2 is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, unsubstituted or substituted phenyl, or unsubstituted or substituted phenyl C1-C3 lower alkyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl and C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl and heterocycle rings;

R3 is selected from the group consisting of an unsubstituted or substituted following group: phenyl, phenyl C1-C6 lower alkyl, thiophenyl, thiophenyl C1-C6 lower alkyl, furanyl, furanyl C1-C6 lower alkyl, pyridinyl, pyridinyl C1-C6 lower alkyl, imidazolyl, imidazolyl C1-C6 lower alkyl, naphthyl, naphthyl C1-C6 lower alkyl, quinolinyl, quinolinyl C1-C6 lower alkyl, indolyl, indolyl C1-C6 lower alkyl, benzothiophenyl, benzothiophenyl C1-C6 lower alkyl, benzofuranyl, benzofuranyl C1-C6 lower alkyl, benzoimidazolyl, benzoimidazolyl C1-C6 lower alkyl, C1-C8 branched or unbranched alkyl, C3-C8 cycloalkyl, C3-C8 cycloalkyl C1-C6 lower alkyl, or C3-C8 alkenyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C1-C8 alkoxy, phenoxy, phenyl C1-C3 alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, methylenedioxy, ethylenedioxy,

propylenedioxy, butylenedioxy, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, phenyl, phenyl C1-C3 lower alkyl, thiophenyl, thiophenyl C1-C3 lower alkyl, furanyl, furanyl C1-C3 lower alkyl, pyridinyl, pyridinyl C1-C3 lower alkyl, naphthyl, naphthyl C1-C3 lower alkyl, quinolinyl, quinolinyl C1-C3 lower alkyl, indolyl, indolyl C1-C3 lower alkyl, benzothiophenyl, benzothiophenyl C1-C3 lower alkyl, benzofuranyl, benzofuranyl C1-C3 lower alkyl, COOH, COR6, COOR6, CONHR6, CON(R6)2, COG, NHR6, N(R6)2, G, OCOR6, OCONHR6, NHCOR6, N(R6)COR6, NHCOOR6 and NHCONHR6;

R4 is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl.

or a pharmaceutically acceptable salt thereof.

15 3. A. compound according to claim 1 selected from the group consisting of:

n is 0 or 1;

10

20

When X is nitrogen or oxygen, Y is nothing;

When Y is nitrogen or oxygen, X is nothing;

T is a sulfonyl group (SO2) or canbonyl group (CO);

When T=CO. X is oxygen or nitrogen;

Z<sup>-</sup> is selected from the group consisting of halo, CF3COO<sup>-</sup>, mesylate, tosylate, or any other pharmaceutically acceptable counter ion;

unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, C<sub>3</sub>-C<sub>8</sub> alkenyl, unsubstituted or substituted phenyl, or unsubstituted or substituted phenyl C1-C3 lower alkyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, phenyl and phenyl C1-C3 lower alkyl.

R2 is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl, unsubstituted or substituted phenyl C1-C3 lower alkyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, C<sub>1</sub>-C<sub>8</sub> branched or unbranched alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl and C<sub>3</sub>-C<sub>8</sub> cycloalkyl lower alkyl and heterocycle rings;

5

30

R3 is selected from the group consisting of an unsubstituted or substituted following group: phenyl, phenyl C1-C6 lower alkyl, thiophenyl, thiophenyl C1-C6 lower alkyl, furanyl, furanyl C1-C6 lower alkyl, pyridinyl, 10 pyridinyl C1-C6 lower alkyl, imidazolyl, imidazolyl C1-C6 lower alkyl, naphthyl, naphthyl C1-C6 lower alkyl, quinolinyl, quinolinyl C1-C6 lower alkyl, indolyl, indolyl C1-C6 lower alkyl, benzothiophenyl, benzothiophenyl C1-C6 lower alkyl, benzofuranyl, benzofuranyl C1-C6 lower alkyl, benzoimidazolyl, benzoimidazolyl C1-C6 lower alkyl, C1-C8 branched or unbranched alkyl, C3-15 C<sub>8</sub> cycloalkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl C<sub>1</sub>-C<sub>6</sub> lower alkyl, or C<sub>3</sub>-C<sub>8</sub> alkenyl; wherein, when substituted, a group is substituted by one or more radicals selected from the group consisting of C<sub>1</sub>-C<sub>8</sub> alkoxy, phenoxy, phenyl C<sub>1</sub>-C<sub>3</sub> alkoxy, halo, hydroxy, amino, cyano, trifluoromethyl, methylenedioxy, ethylenedioxy, propylenedioxy, butylenedioxy, C1-C8 branched or unbranched alkyl, C3-C8 20 cycloalkyl, C3-C8 cycloalkyl lower alkyl, phenyl, phenyl C1-C3 lower alkyl, thiophenyl, thiophenyl C1-C3 lower alkyl, furanyl, furanyl C1-C3 lower alkyl, pyridinyl, pyridinyl C1-C3 lower alkyl, naphthyl, naphthyl C1-C3 lower alkyl, quinolinyl, quinolinyl C1-C3 lower alkyl, indolyl, indolyl C1-C3 lower alkyl, benzothiophenyl, benzothiophenyl C1-C3 lower alkyl, benzofuranyl, 25 benzofuranyl C1-C3 lower alkyl, COOH, COR6, COOR6, CONHR6, CON(R6)2, COG, NHR6, N(R6)2, G, OCOR6, OCONHR6, NHCOR6, N(R6)COR6, NHCOOR6 and NHCONHR6;

R4 is selected from the group consisting of  $C_1$ - $C_8$  branched or unbranched alkyl,  $C_3$ - $C_8$  cycloalkyl,  $C_3$ - $C_8$  cycloalkyl lower alkyl.

4.

or a pharmaceutically acceptable salt thereof.

- 4. A. compound according to claim 1 selected from the group consisting of:
- N-((3S)-1-{[3,4-bis(methyloxy)phenyl]methyl}-1-methyl-3-piperidiniumyl)-N-{[(4-{[(2,2,2-trifluoroethyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  - $\label{eq:N-(3S)-1-[3,4-bis(methyloxy)phenyl]methyl} $$N-((3S)-1-\{[3,4-bis(methyloxy)phenyl]methyl-1-methyl-3-piperidiniumyl)-$N-\{[(4-\{[5-methyl-2-thienyl)sulfonyl]oxy\}phenyl)amino]carbonyl-L-tyrosinamide$
- 10 trifluoroacetate;
  - $N-((3S)-1-\{[3,4-bis(methyloxy)phenyl]methyl\}-1-methyl-3-piperidiniumyl)-<math>N-\{[(4-methyl-2-thienyl)sulfonyl]oxy\}$ phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
- N-((3S)-1-{[3,4-bis(methyloxy)phenyl]methyl}-1-methyl-3-piperidiniumyl)-N-[({4-15 [(8-quinolinylsulfonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
  - N-((3S)-1-{[3,4-bis(methyloxy)phenyl]methyl}-1-methyl-3-piperidiniumyl)-N-({[4-([3,4-bis(methyloxy)phenyl]sulfonyl}oxy)phenyl]amino}carbonyl)-L-tyrosinamide trifluoroacetate;
- N-((3S)-1-{[3,4-bis(methyloxy)phenyl]methyl}-1-methyl-3-piperidiniumyl)-N-{[(4-{[(2-bromophenyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
- 25 trifluoroacetate;
- 30 trifluoroacetate;
  N-((3S)-1-{[3,4-bis(methyloxy)phenyl]methyl}-1-methyl-3-piperidiniumyl)-N-[({4-[(3-thienylsulfonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;

*N*-[(3*S*)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-*N*-{[(4-{[(2,5-dimethyl-3-thienyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;

- $N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidiniumyl]-N-{[(4-methyl-3-piperidini$
- 5 {[(2,2,2-trifluoroethyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  - *N*-[(3*S*)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-*N*-{[(4-{[(5-methyl-2-thienyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
- N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-{[(4-methyl-2-thienyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  - $\label{eq:N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-{[(5-chloro-2-thienyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide} \\$
- 15 trifluoroacetate;
  - N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-[({4-[(methylsulfonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate; N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-[({4-[(propylsulfonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
- N-({[4-({[2-(acetylamino)-4-methyl-1,3-thiazol-5-yl]sulfonyl}oxy)phenyl]amino}carbonyl)-N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-L-tyrosinamide trifluoroacetate;
  N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-({[4-({[4-(yhenylsulfonyl)-2-thienyl]sulfonyl}oxy)phenyl]amino}carbonyl)-L-tyrosinamide
  trifluoroacetate;
- N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-{[(5-chloro-2,1,3-benzoxadiazol-4-yl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
- N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-[({4-[(2-naphthalenylsulfonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;

 $N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-<math>N-\{[(4-\{[(2,2,2-trifluoroethyl)sulfonyl]oxy\}phenyl)amino]carbonyl\}-L-tyrosinamide trifluoroacetate;$ 

- N-{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-N-{[(4-{[(5-methyl-2-thienyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  N-{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-N-{[(4-{[(4-methyl-2-thienyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  N-{[(4-{[(4-cyanophenyl)sulfonyl]oxy}phenyl)amino]carbonyl}-N-{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-L-tyrosinamide trifluoroacetate;
- 10 N-{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-N-({[4-({[4-({[4-(trifluoromethyl)phenyl]sulfonyl}oxy)phenyl]amino}carbonyl)-L-tyrosinamide trifluoroacetate;
  - $N-\{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-N-(\{[4-(\{[5-(3-isoxazolyl)-2-thienyl]sulfonyl\}oxy)phenyl]amino\}carbonyl)-L-tyrosinamide$
- 15 trifluoroacetate;
  - *N*-{(3*S*)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-*N*-{[(4-{[(3-fluorophenyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  - $N-\{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-N-\{[(4-\{[(1,3,5-1)],2],2],2],2\}-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-\{[(1,3,5-1)],2],2],2\}-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-\{[(1,3,5-1)],2],2],2\}-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-\{[(1,3,5-1)],2],2],2\}-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-\{[(1,3,5-1)],2],2],2\}-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-\{[(1,3,5-1)],2],2],2\}-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-\{[(1,3,5-1)],2],2\},2\}-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-\{[(1,3,5-1)],2],2\},2\}-1-[(4-fluorophenyl)methyl]-1-[(4-fluorophenyl)methyll]-1-[(4-fluorophenyl)methyll]-1-[(4-fluorophenyl)methyll]-1-[(4-fluorophenyl)methyll]-1-[(4-fluorophenyl)methyll]-1-[(4-fluorophenyl)methyll]-1-[(4-fluorophenyl)methyll]-1-[(4-fluorophenyl)$
- 20 trimethyl-1H-pyrazol-4-yl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  - *N*-{(3*S*)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-*N*-{[(4-{[(5-methyl-4-isoxazolyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
- N-{[(4-{[(3,5-dimethyl-4-isoxazolyl)sulfonyl]oxy}phenyl)amino]carbonyl}-N-{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-L-tyrosinamide trifluoroacetate;
  - *N*-{[(4-{[(2,4-dichlorophenyl)sulfonyl]oxy}phenyl)amino]carbonyl}-*N*-{((3*S*)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-L-tyrosinamide trifluoroacetate;
- 30 *N*-{(3*S*)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-*N*-[({4-[({4-[({4-[(trifluoromethyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;

*N*-{(3*S*)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-*N*-{[(4-{[(1-methyl-1*H*-imidazol-4-yl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;

- N-[({4-[(cyclohexylcarbonyl)oxy]phenyl}amino)carbonyl]-N-{(3S)-1-[(4-
- fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-L-tyrosinamide trifluoroacetate;

  N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-[({4[(cyclohexylcarbonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide

  trifluoroacetate;
  - $\textit{N-}\{(3S)-1-[(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl\}-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl]-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl]-\textit{N-}\{(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl]-N-\{(4-chlorophenyl)methyllophenyl]-N-\{(4-chlorophenyl)methyllophenyl]-N-\{(4-chlorophenyl)methyllophenyllophenyllophenyllophenyllophenyllophenyllophenyllophenyllophenyllophenyllophenyllophenyllop$
- 10 [(cyclohexylcarbonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
  - *N*-{(3*S*)-1-[(3-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl}-*N*-[({4-[(cyclohexylcarbonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
- N-((3S)-1-{[3,4-bis(methyloxy)phenyl]methyl}-1-methyl-3-piperidiniumyl)-N-[({4-[(cyclohexylcarbonyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
  - *N-*{(3*S*)-1-[(3-hydroxyphenyl)methyl]-1-methyl-3-piperidiniumyl}-*N-*[({4-[(2-methylpropanoyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
- N-{(3S)-1-[(3-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl}-N-[({4-[(2-methylpropanoyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
  N-{(3S)-1-[(4-chlorophenyl)methyl]-1-methyl-3-piperidiniumyl}-N-[({4-[(2-methylpropanoyl)oxy]phenyl}amino)carbonyl]-L-tyrosinamide trifluoroacetate;
  N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-{[(1-methyl-3-piperidiniumyl-3-piperidiniumyl-N-{[(4-{[(1-methyl-3-piperidiniumyl-3-piperidiniumyl-3-piperidiniumyl-N-{[(4-{[(1-methyl-3-piperidiniumyl-3-piperidiniumyl-3-piperidiniumyl-3-piperidiniumyl-N-{[(4-{[(4-[(1-methyl-3-piperidiniumyl-3-piperidiniumyl-3-piperidiniumyl-3-piperidini
- 25 methylethyl)amino]sulfonyl}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  - *N-*{(3*S*)-1-ethyl-1-[(3-hydroxyphenyl)methyl]-3-pyrrolidiniumyl}-*N-*{[(4-{[(1-methylethyl)amino]sulfonyl}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
- 30 or any other pharmaceutically acceptable salt.

5. A compound according to claim 1 selected from the group consisting of:  $N-((3S)-1-\{[3,4-bis(methyloxy)phenyl]methyl\}-1-methyl-3-piperidiniumyl)-<math>N-\{[(4-\{[(2,5-dimethyl-3-thienyl)sulfonyl]oxy\}phenyl)amino]carbonyl\}-L-tyrosinamide trifluoroacetate$ 

- 5 N-((3S)-1-{[3,4-bis(methyloxy)phenyl]methyl}-1-methyl-3-piperidiniumyl)-N-{[(4-{[(2,5-dimethyl-3-thienyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
  - $N-((3S)-1-\{[3,4-bis(methyloxy)phenyl]methyl\}-1-methyl-3-piperidiniumyl)-N-\{[(4-\{[(1-methylethyl)sulfonyl]oxy\}phenyl)amino]carbonyl\}-L-tyrosinamide$
- trifluoroacetate;

  N-[(3S)-1-(1,3-benzodioxol-5-ylmethyl)-1-methyl-3-piperidiniumyl]-N-{[(4-{[(6-chloro-3-methyl-1-benzothien-2-yl) sulfonyl]oxy}phenyl)amino] carbonyl}-L-
  - $\textit{N-}\{[(4-\{[(2,5-dimethyl-3-thienyl)sulfonyl]oxy\}phenyl)amino]carbonyl]-\textit{N-}\{(3S)-1-((3S)-1-((3S)-1)amino]carbonyl]-\textit{N-}\{(3S)-1-((3S)-1)amino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]carbonyllamino]car$
- 15 [(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-L-tyrosinamide trifluoroacetate;
  - *N*-{(3*S*)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-*N*-{[(4-{[(1-methylethyl)sulfonyl]oxy}phenyl)amino]carbonyl}-L-tyrosinamide trifluoroacetate;
- 20 N-{(3S)-1-[(4-fluorophenyl)methyl]-1-methyl-3-piperidiniumyl}-N-{[(4-{[(1-methyl-3-piperidiniumyl}-N-{[(4-methyl-3-pipe
  - $N-\{(3S)-1-[(3-hydroxyphenyl)methyl]-1-methyl-3-piperidiniumyl\}-N-\{[(4-\{[(1-methylethyl) amino] sulfonyl\}phenyl)amino]carbonyl\}-L-tyrosinamide$
- 25 trifluoroacetate

30

tyrosinamide trifluoroacetate;

- or any other pharmaceutically acceptable salt, or non-salt form thereof.
- 6. A Pharmaceutical composition for the treatment of muscarinic acetylcholine receptor mediated diseases comprising a compound according to claim 1 and a pharmaceutically acceptable carrier thereof.

7. A method of inhibiting the binding of acetylcholine to its receptors in a mammal in need thereof comprising administering a safe and effective amount of a compound according to claim 1.

- 8. A method of treating a muscarinic acetylcholine receptor mediated disease, wherein acetylcholine binds to said receptor, comprising administering a safe and effective amount of a compound according to claim 1.
- 9. A method according to claim 8 wherein the disease is selected from the group consisting of chronic obstructive lung disease, chronic bronchitis, asthma, chronic respiratory obstruction, pulmonary fibrosis, pulmonary emphysema and allergic rhinitis.
- 10. A method according to claim 9 wherein administration is via inhalation15 via the mouth or nose.
  - 11. A method according to claim 10 wherein administration is via a medicament dispenser selected from a reservoir dry powder inhaler, a multi-dose dry powder inhaler or a metered dose inhaler.
  - 12. A method according to claim 11 wherein the compound is administered to a human and has a duration of action of 12 hours or more for a 1 mg dose.

20 .

- 13. A method according to claim 12 wherein the compound has a duration of action of 24 hours or more.
  - 14. A method according to claim 10 milerein the compound has a duration of action of 36 hours or more.